

What is claimed is:

1. A method for detecting whether an image of a characteristic portion exists in an image to be processed, comprising:

sequentially cutting images of a required size from the image to be processed; and

comparing the cut images with verification data corresponding to the image of the characteristic portion,

wherein a limitation is imposed on a size range of the image of the characteristic portion with reference to the size of the image to be processed, based on information about a distance between a subject and a location of imaging the subject, obtained when the image to be processed has been photographed, thereby limiting the size of the cut images to be compared with the verification data.

2. The method according to claim 1, wherein the limitation is effected through use of information about a focal length of a photographing lens in addition to the information about a distance to the subject.

3. The method according to claim 1, wherein the comparison is performed through use of a resized image into which the image to be processed has been resized.

4. The method according to claim 3, wherein the comparison is effected through use of the verification data corresponding to the image of a characteristic portion of determined size by changing a size of the resized image.

5. The method according to claim 3, wherein the comparison is effected through use of the verification data, the data being obtained by changing the size of the image of the characteristic portion while the size of the resized image is fixed.

6. The method according to claim 1, wherein the verification data comprises template image data pertaining to the image of the characteristic portion.

7. The method according to claim 1, wherein the verification data comprises data prepared by converting an amount of characteristic of the image of the characteristic portion into digital data.

8. The method according to claim 1, wherein the verification data is formed from data upon which at least one rule for extracting the amount of the image of the characteristic portion has been applied.

9. The method comprising limiting a range in which an image of a characteristic portion of a second image to be processed followed by a first image to be processed, is retrieved through use of information about a position of a characteristic portion extracted from the first image, the information being obtained by the method according to claim 1.

10. A computer-readable medium including set of instructions for detecting whether an image of a characteristic portion exists in an image to be processed, the set of instructions comprising:

sequentially cutting images of a required size from the image to be processed; and

comparing the cut images with verification data pertaining to the image of the characteristic portion,

wherein the program includes limiting a size range of the image of the characteristic portion with reference to the size of the image to be processed based on information about a distance between a subject and a location of imaging of the subject that is obtained when the image to be processed has been photographed, to limit the size of the cut images.

11. The computer readable medium including the set of instructions of claim 10, the instructions further comprising limiting a range in which an image of a characteristic portion

of a second image to be processed followed by a first image to be processed is retrieved, through use of information about a position of a characteristic portion extracted from the first image.

12. The computer readable medium including the set of instructions of claim 10, wherein the computer readable medium having the instructions is positioned in at least one of an imaging device and an image processing device.

13. The computer readable medium including the set of instructions of claim 10, wherein the distance information used when the instructions execute the limiting corresponds to distance information added to the image to be processed as tag information.

14. The computer readable medium including the set of instructions of claim 10, further comprising the following instruction: determining the distance information required at the time of execution of the limiting by the instructions.

15. The computer readable medium including the set of instructions of claim 14, wherein the determining instruction is performed by at least one of a range sensor, a unit for counting a number of motor drive pulses arising when the focus of a

photographing lens is set on a subject, a unit for determining information about a focal length of a photographing lens, a unit for estimating a distance to the subject based on a photographing mode and a unit for estimating a distance to the subject based on a focal length of a photographing lens.

16. The computer readable medium including the set of instructions of claim 10, wherein the set of instructions further comprises subjecting the verification data to an artificial intelligence system.

17. The computer readable medium of claim 16, wherein the artificial intelligence system comprises at least one of a neural network and a genetic algorithm applied to the verification data to provide learned recognition for the image of the subject.

18. A data collection and processing device, comprising:
a processor that converts input data of a subject as received by a data capture element into a machine-readable data and performs at least one of synchronization and correction processing on the machine-readable data;

a controller that performs a first command signal and a second command signal; and

an extractor that extracts a characteristic portion from

the machine-readable, processed data in response to a first command signal from the controller;

wherein distance information between the subject and the data capture element in response to a second command signal from the controller is received by the device, and wherein the distance information is applied to the processed data, and further wherein the processed data is iteratively manipulated based on a result of a comparison with reference data.

19. The device of claim 18, wherein the distance information is one of (a) obtained by a ranging sensor that measures a distance between the subject and the data capture element, and (b) a predetermined distance value.

20. The device of claim 18, wherein the reference data comprises copies of previously captured ones of the input data, and the result comprises a determination as to whether the reference data substantially matches the processed input data.

21. The device of claim 18, wherein a scale of the processed input data is manipulated with respect to the reference data to generate a processed input data having a scale with a prescribed range with respect to the reference data.